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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/050,808	03/30/1998	YUTAKA MACHIDA	MAT-5860	7277

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EXAMINER	
WONG, ALLEN C	
ART UNIT	PAPER NUMBER
2613	39

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/050,808	MACHIDA, YUTAKA	
	Examiner	Art Unit	
	Allen Wong	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 July 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2,7 and 12-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) *2,7 and 12-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see appeal brief, filed 7/6/04, with respect to the rejection(s)of claim(s) 2, 7 and 12-22 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 2, 7 and 12-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Parke (5,982,439) in view of Sun (5,247,363).

Regarding claims 21 and 22, Parke discloses an apparatus and method of coding block N+1 in frame N+1 of successive frames, said method comprising the steps of:

evaluating block N of frame N and block N-M of frame N-M of said signal, wherein blocks N-M, N and N+1 are in corresponding locations of frames N-M, N and N+1, respectively, M => 1 (see fig.7 and col.13, ln.12-43; Parke discloses a common, well known approach called "telescoping" in that from frame N, block N can be evaluated, and from frame N-M, block N-M can be evaluated as well, where Parke further discloses that there is a block to be transmitted is separated by 3 frame spacings

where there are at least three frames involved, each of those frames with corresponding block locations);

identifying an error in one of block N and block N-M (col.13, ln.12-39; Parke discloses that since the idea of "telescoping" refers to motion vectors or errors from other frames, the calculation of the motion vectors, from frame 4 with reference to frame 3, motion vector, from frame 5 with reference to frame 3, thus error in one of block N and block N-M from frame N and N-M, respectively, is obtained); and

using the other of block N and N-M to code block N+1 (col.13, ln.12-39; Parke discloses that since the idea of "telescoping" refers to motion vectors or errors from other frames, the calculation of the motion vectors, from frame 4 with reference to frame 3, motion vector, from frame 5 with reference to frame 3, are needed to link or telescope together to obtain an error or, as disclosed in col.14, ln.13-18, the single motion vector produced by telescoping these vectors, thus, using the other of block N and N-M to code block N+1).

Since Parke discloses the apparatus and method of encoding block data of image signal information, Parke does not specifically disclose the apparatus and method of *decoding* block data of image signal information. It would have been obvious to one of ordinary skill in the art to acknowledge and implement a decoder to decode the image data coded by Parke's teachings for decoding the image data so as to display the image information for viewing. Otherwise, Parke's coding system would be useless if Parke's system does not have an equivalent decoding system to undo the coding process for viewing the decoded image data. However, if one is not convinced, then one

of ordinary skilled can rely on Sun to teach the use of a decoder for decoding image data coded (see fig.5, note the embodiment is a decoder for decoding the encoded image data in that the decoded image data is outputted at "video out"). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Parke and Sun, as a whole for accurately decompressing image data so as to present high image quality for viewing (Sun col.2, ln.8-11).

Regarding claim 20, Parke does not disclose the detector including: means for decoding the bit stream for information defining pixel blocks, the motion information including motion vectors; means for detecting an error in the information of one of the pixel blocks; means for storing error information of the one of the pixel blocks in an error memory; means for storing video information of at least two frames which are prior to a present frame; means for generating, from the at least two frames, at least two predicted pixel blocks corresponding to a present pixel block which is block N+1 in the present frame; means for judging if one of the at least two predicted pixel blocks corresponds to error information stored in the means for storing; and means for determining if the one of the at least two predicted pixel blocks is used in reconstructing the present block, based on judging of the means for judging. However, Sun discloses wherein the detector includes:

means for decoding the bit stream for information defining pixel blocks, the motion information including motion vectors (figure 5, note elements 302 and 303 are used to decode the video data bit stream);

means for detecting an error in the information of one of the pixel blocks (figure 5, note the error is sent from element 302 to element 348, thus error is detected);

means for storing error information of the one of the pixel blocks in an error memory (figure 5, element 348);

means for storing video information of at least two frames which are prior to a present frame (figure 5, element 316);

means for generating, from the at least two frames, at least two predicted pixel blocks corresponding to a present pixel block which is block N+1 in the present frame (figure 5, element 304 is a motion compensation means);

means for judging if one of the at least two predicted pixel blocks corresponds to error information stored in the means for storing (figure 5, element 344; note element 304 generates the at least two predicted pixel blocks and then the information is sent back to element 316, then the information is sent to element 344, the means for judging); and

means for determining if the one of the at least two predicted pixel blocks is used in reconstructing the present block, based on judging of the means for judging (figure 5, element 344; note element 348 sends the motion vector data and error information to element 344 for determining if the at least two predicted pixel blocks is used in reconstructing the present block).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Parke and Sun, as a whole for accurately decompressing image data so as to present high image quality for viewing (Sun col.2, ln.8-11).

Note claims 12-14, 16 and 17 have similar corresponding elements.

Regarding claim 2, Parke does not disclose the predicted pixel blocks are free from decoding error and are used in the reconstruction of the present pixel block.

Sun discloses the predicted pixel blocks are free from decoding error and are used in the reconstruction of the present pixel block (figure 5, element 344 the predicted pixel blocks are free from decoding error and that these pixel blocks are used for reconstruction). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Parke and Sun, as a whole for accurately decompressing image data so as to present high image quality for viewing (Sun col.2, ln.8-11).

Regarding claim 7, Parke does not disclose the storing of bit errors in decoding error maps.

Sun discloses the storing of bit errors in decoding error maps (figure 5, element 348). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Parke and Sun, as a whole for accurately decompressing image data so as to present high image quality for viewing (Sun col.2, ln.8-11).

Regarding claim 15, Parke does not disclose that if the at least two pixel blocks are judged not to correspond to error information, an average of the at least two predicted pixel blocks is used for reconstruction.

Sun discloses that if the at least two pixel blocks are judged not to correspond to error information, an average of the at least two predicted pixel blocks is used for reconstruction (figure 5, element 340; note an average value of the predicted pixel blocks is calculated at 340, then the average value is stored at element 342, next the

average value is used for reconstruction). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Parke and Sun, as a whole for accurately decompressing image data so as to present high image quality for viewing (Sun col.2, ln.8-11).

Regarding claim 18, Parke does not disclose variable length decoder.

Sun discloses a variable length decoder (figure 5, element 303; note element 302 is a decompression controller that controls the VLD 303) and the error information is stored into the decoding error maps (figure 5, element 348). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Parke and Sun, as a whole for accurately decompressing image data so as to present high image quality for viewing (Sun col.2, ln.8-11).

Regarding claim 19, Parke discloses the idea of telescoping frames or discloses the generation of another predicted pixel block based on a reconstructed video frame that is two frames before the present frame (col.13, ln.12-43). Parke does not disclose the motion compensation means for generating one predicted pixel block based on a reconstructed video frame that is one frame before the present frame. Sun discloses the motion compensation means for generating one predicted pixel block based on a reconstructed video frame that is one frame before the present frame (figure 5, element 304 is a motion compensation means). Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Parke and Sun, as a whole for accurately decompressing image data so as to present high image quality for viewing (Sun col.2, ln.8-11).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen Wong whose telephone number is (703) 306-5978. The examiner can normally be reached on Mondays to Thursdays from 8am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Allen Wong
Examiner
Art Unit 2613

AW
9/29/04